MODUL HANDBOOK

Module Name	Practicum of Organic Chemistry
Module level	Bachelor
Abbreviation, if applicable	-
Sub-heading, if applicable	-
Course included in the module, if applicable	-
Semester/term	1st/First Year
Module coordinator(s)	Prof. Dr. Tukiran, M.Si.
Lecturer(s)	Prof. Dr. Suyatno, M.Si., Dr. Ismono, M.S., Dr. Mitarlis, M.Si., Dr. Rinaningsih, M.Pd., Dr. Ratih Dewi Saputri, M.Si.
Language	Indonesian
Classification within the curriculum	Compulsory Course
Teaching format/class hours per week during the semester	3 hours lecturers (50 min per hours)
Workload	Total workload 126 hours per semester which consists of 3 hours for lecture, 3 hours for structured activities, 3 hours for individual activities, and 14 weeks per a semester (4.2 ECTS)
Credit points	3 SCU
Prerequisites course(s)	-
Targeted learning outcomes	CLO 1 Students have the skills to perform purification, identify functional groups, determine physical properties, synthesize simple organic compounds, and isolate biological organic compounds. CLO 2 Students can make decisions based on the refining process results, identification of functional groups, determination of physical properties, synthesis of simple organic compounds, and isolation of biological organic compounds. CLO 3 Students can master the basic concepts of purification, identification of functional groups, determination of physical properties, synthesis of simple organic compounds, and isolation of biological organic compounds. CLO 4 Students have a responsible attitude in identifying, synthesizing, and isolating organic compounds.
Content	1. Basic principles of distillation, sublimation, and solvent extraction and basic skills working in the laboratory 2. Practicum of re-crystallization and melting point determination 3. Practicum of alkanes, alkenes, and alkynes 4. Practicum of alcohol and phenol 5. Practicum of aldehyde and ketone 6. Practicum of carboxylic acids 7. Practicum of identification to types of carbohydrates

	8. Practicum of identification to the properties of proteins 9. Practicum of identification to Lipids 10. Practicum of aspirin synthesis 11. Practicum of *n*-Butyl acetate Synthesis 12. Practicum of isolation of ginger oil 13. Practicum of phytochemical test 14. Practicum of extraction and purification of biological organic compounds, and 15. Presentation of practicum results
Study/exam achievements	Students are considered to be competent and pass if at least get 55. Final score is calculated as follows: 20% participation + 30% assignment + 20% middle exam (UTS) & 30% final exam (UAS). Table index of graduation • A = 4 (85 ≤-≥ 100) • A- = 3,75 (80 ≤-< 85) • B+ = 3,5 (75 ≤- < 80) • B = 3 (70 ≤-< 75) • B- = 2,75 (65 ≤-<75) • C+ = 2,5 (60 ≤-<65) • C = 2 (55 ≤-<60) • D = 1 (40 ≤-<55) • E = 0 (0 ≤-<40)
Media	Computer, LCD, White board, chemicals and laboratory equipment for doing practicum
Learning Methods	Individuals assignment, group assignment, discussion, presentation, and practicum
Literature	1. Anwar, C., Purwono, B., Pranowo, H.D., Wahyuningsih, T.D. (1996). *Pengantar Praktikum Kimia Organik*. Jakarta: Depdikbud Dirjendikti. 2. Fessenden, R.J. dan Fessenden, J.S. (1998). *Kimia Organik*. Jilid 1 dan 2. Penerjemah AH Pudjaatmaka. Jakarta: Erlangga. 3. Harborne, J.B. (1987). *Metode Fitokimia*. Penterjemah: Kosasih P. Bandung : Penerbit ITB. 4. Solomon, T.W.G. & Fryhle, C.B. (2011*). Organic Chemistry*. 10th Edition. New York: John Wiley & Sons, Inc. 5. Vogel, A.I. (1974). *A Text Book of Practical Organic Chemistry*. London: Longman Group Limited.
Note	Practicum of Organic Chemistry covers the activities of theory, discussion, practicum and presentation. Total ECTS = ((total hours workload x 50 min)/60 min)/25 hours. Each ECTS is equals wits 25 hours.